

REMARKS

Reconsideration of this application is respectfully requested. Claims 1-3, 7-12, 17, 18 and 20-27 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent Number 5,455,958 by Flurry et al. (hereinafter "Flurry") in view of U.S. Patent Number 6,157,393 by Potter et al (hereinafter "Potter"). Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over "Flurry" in view of "Potter" as applied to claim 1 above, and further in view of U.S. Patent Number 5,703,806 by Puar et al. (hereinafter "Puar"). Claims 14 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over "Flurry" in view of "Potter" as applied to claim 2 above, and further in view of U.S. Patent Number 6,311,204 by Mills (hereinafter "Mills"). Claims 5-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over "Flurry" in view of "Potter" as applied to claim 2 above, and further in view of U.S. Patent Number 6,252,600 B1 by Kohli et al. (hereinafter "Kohli").

Claim Rejections – 35 U.S.C. § 103

The Examiner rejected claims 1-3, 7-12, 17, 18 and 20-27 under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent Number 5,455,958 by Flurry et al. (hereinafter "Flurry") in view of U.S. Patent Number 6,157,393 by Potter et al (hereinafter "Potter").

In regards to claim 1, the Examiner states:

to concurrently render two or more independent images for display on multiple display devices (... this invention is designed to function with several display devices connected to it... [Flurry] col. 5, lines 25-30)
Office Action, page 3.

Applicants respectfully traverse these rejections and assert that Flurry does not disclose this limitation of claim 1. Claim states:

1. apparatus, comprising:

a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices, the two or more independent images include a first independent image and a second independent image; and

a graphics context manager to store in a first memory area and restore from the first memory area information describing a first rendering context associated with the first independent image, the graphics context manager to store in a second memory area and restore from the second memory area information describing a second rendering context associated with the second independent image; and

a time allocator to arbitrate the use of the graphics-rendering engine between the two or more independent images, wherein the time allocator comprises a first module to establish a programmable elapsed period of time to use the graphics-rendering engine, the period of time is defined by a programmable number of unit time periods, where each unit time period is defined by a programmable number of real-time quanta.

Emphasis Added

Applicants respectfully assert that Flurry does not disclose a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Applicants submit that Flurry does in fact disclose a graphics-rendering engine that allows for multiple display devices to be connected to it. Flurry, col. 5, lines 25-30. However, Flurry does not disclose that the graphics-rendering engine concurrently renders two or more independent images for display on multiple display devices. Flurry is completely silent about concurrently rendering two or more independent images.

In contrast, Flurry merely discloses that the graphics-rendering engine (e.g. RCM 22) permits a single application program to access a single display device at a given instant, while making it appear to an X Server that multiple applications are accessing the display device simultaneously. Flurry, col. 4, lines 54-59. A graphics-rendering engine that tricks an X Server into thinking that multiple applications are simultaneously

accessing a single display device is not the same as a graphics-rendering engine that concurrently renders two or more independent images for display on multiple display devices. In Flurry, the exact same image will be displayed on the first display device and on the second display. A second image with different data and being independent and distinct from the first image cannot be displayed on the second display.

Accordingly, Flurry does not disclose a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Flurry does not disclose a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Flurry does not disclose a first memory area storing information describing a first rendering context associated with the first independent image and a second memory area storing information describing a second rendering context associated with the second independent image. Moreover, Flurry does not disclose a time allocator to arbitrate the use of the graphics-rendering engine between the two or more independent images. Therefore, Flurry fails to disclose these elements of claim 1.

Applicants respectfully submit that Potter also fails to disclose a graphics-rendering engine that concurrently renders two or more independent images for display on multiple display devices. Potter is completely silent on this limitation of claim 1. If a reference does not discuss a limitation, then that reference cannot disclose or suggest the limitation. As stated in the previous response, Potter merely discloses a first and a second amount of graphical data. There is no mention of complete and independent images. A first and a second amount of graphical data is not the same as two or more independent images. Therefore, Potter also fails to disclose this element of claim 1.

Furthermore, even if Flurry and Potter were combined, such a combination would lack a graphics-rendering engine to concurrently render two or more independent images for display on multiple display adapters. By way of contrast, the combination of Flurry and Potter would disclose a controller where the first amount of graphical data is comprised of at least two of the second amounts of graphical data.

Therefore, in view of the above distinction, neither Flurry nor Potter, individually or in combination, disclose each and every element of claim 1. As such, claim 1 is not rendered obvious by Flurry in view of Potter under 35 U.S.C. §103(a).

Applicants respectfully submit that Flurry does not suggest a combination with Potter, and Potter does not suggest a combination with Flurry because Flurry specifically teaches away from such a combination. Hence, it would be impermissible hindsight to combine Flurry with Potter based on applicants' own disclosure

Claims 2, 3, 7-12 and 27 all depend upon and include the limitations of claim 1. Therefore claims 2, 3, 7-12 and 27 are also not rendered obvious by the combination of Flurry and Potter under 35 U.S.C. §103(a).

Likewise, independent claims 21 and 24 include the limitation "a graphics-rendering engine to concurrently render two or more independent images for display on multiple display adapters." As discussed above, the combination of Flurry and Potter does not teach or suggest this limitation. As such, claim 24 is not made obvious by the combination of Flurry and Potter under 35 U.S.C. §103(a).

Claims 22-23 depend upon and include the limitations of independent claim 21. Therefore claims 22-23 are also not rendered obvious by the combination of Flurry and Potter under 35 U.S.C. §103(a).

In regards to independent claim 17, the Examiner states:

Flurry et al. discloses the concurrently rendering instructions (col. 5, lines 25-30); storage in a first memory area instruction for a first independent images; restoring from a second memory area instruction for a second independent image (...each entry in the domain array 70 contains a link to the device process. RCM 22 can authorize access to independent domains of display devices independently ...a device domain is an environment with the device to which a graphics process is providing data... col.7, lines 1-65).

(Office Action, page 7)

Applicants respectfully traverse these rejections and submit that Flurry does not disclose this limitation of claim 17. Claim 17 states:

17. A method, comprising:

concurrently rendering instructions associated with multiple independent images within a first instruction-stream;

storing in a first memory area information representing a first rendering context associated with a first independent image;

restoring from a second memory area instructions representing a second rendering context associated with a second independent image, wherein the first memory area and the second memory area are included in a plurality of memory areas;

...

...

(Emphasis Added)

Applicants submit that Flurry does not disclose the concurrent rendering of instructions associated with multiple independent images with a first instruction-stream. Applicants agree with Examiner than col. 7, lines 1-65 describe concurrent rendering of instructions. However there is no discussion of said concurrent rendering of instruction being associated with multiple independent images. Col. 7, lines 30-35 states that, "It

should be understood that the RCM 22 can authorize access to independent domains of display devices independently. A device domain is an environment within the device to which a graphics process is providing data." This language does not disclose rendering multiple independent images. A graphics process providing data to multiple display devices is not the same as currently rendering multiple independent images.

Applicants also submit that Potter fails to disclose concurrently rendering instructions associated with multiple independent images within a first instruction-stream. Potter is completely silent on this limitation. If a reference does not discuss a limitation, then that reference cannot disclose or suggest the limitation. As states in the previous response, Potter merely discloses a first and a second amount of graphical data. There is no mention of complete and independent images. A first and a second amount of graphical data is not the same as two ore more independent images. Therefore, Potter also fails to disclose this element of claim 17.

Furthermore, even if Flurry and Potter were combined, such a combination would lack "concurrently rendering instructions associated with multiple independent images within a first instruction-stream." By way of contrast, the combination of Flurry and Potter would disclose an RCM that allows for multiple display devices to be connected to it wherein each device may contain a graphics process that provides data.

Therefore, in view of the above distinction, neither Flurry nor Potter, individually or in combination, disclose each and every element of claim 17. As such, claim 17 is not rendered obvious by Flurry in view of Potter under 35 U.S.C. §103(a).

Applicants respectfully submit that Flurry does not suggest a combination with Potter, and Potter does not suggest a combination with Flurry because Flurry

specifically teaches away from such a combination. Hence, it would be impermissible hindsight to combine Flurry with Potter based on applicants' own disclosure.

Claims 18, 20 and 26 depend upon and include the limitations of independent claim 17. Therefore claims 18, 20 and 26 are also not rendered obvious by the combination of Flurry and Potter under 35 U.S.C. §103(a).

Likewise, independent claim 25 includes "the concurrent rendering of instructions associated with multiple independent images within a first instruction-stream." As discussed above, the combination of Flurry and Potter do not disclose this limitation. As such, claim 25 and not rendered obvious by the combination of Flurry and Potter under 35 U.S.C. §103(a).

The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over "Flurry" in view of "Potter" as applied to claim 1 above, and further in view of U.S. Patent Number 5,703,806 by Puar et al. (hereinafter "Puar").

As stated above in regards to claim 1, neither Flurry nor Potter disclose, a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Applicants also submit that Puar fails to disclose a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Puar is completely silent on this limitation. If a reference does not discuss a limitation, then that reference cannot disclose or suggest the limitation. As such, individually or in combination, Flurry, Potter and Puar fail disclose each and every limitation of claim 4. Therefore claim 4 is not rendered obvious under 35 U.S.C. 103(a).

The Examiner rejected claims 14 and 16 under 35 U.S.C. § 103(a) as being unpatentable over "Flurry" in view of "Potter" as applied to claim 2 above, and further in view of U.S. Patent Number 6,311,204 by Mills (hereinafter "Mills").

As stated above in regards to claim 1, neither Flurry nor Potter disclose, a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Applicants also submit that Mills fails to disclose a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Mills is completely silent on this limitation. If a reference does not discuss a limitation, then that reference cannot disclose or suggest the limitation. As such, individually or in combination, Flurry, Potter and Mills fail to disclose each and every limitation of claims 14 and 16. Therefore claims 14 and 16 are not rendered obvious under 35 U.S.C. 103(a).

The Examiner rejected claims 5-6 under 35 U.S.C. § 103(a) as being unpatentable over "Flurry" in view of "Potter" as applied to claim 2 above, and further in view of U.S. Patent Number 6,252,600 B1 by Kohli et al. (hereinafter "Kohli").

As stated above in regards to claim 2, neither Flurry nor Potter disclose, a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Applicants also submit that Kohli fails to disclose a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices. Kohli is completely silent on this limitation. If a reference does not discuss a limitation, then that reference cannot disclose or suggest

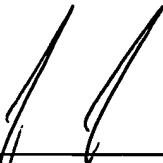
the limitation. As such, individually or in combination, Flurry, Potter and Kohli fail disclose each and every limitation of claims 5-6. Therefore claims 5-6 are not rendered obvious under 35 U.S.C. 103(a).

Conclusion

It is respectfully submitted that in view of the amendments and remarks set forth herein, the rejections and objections have been overcome. **A petition for an extension of time is submitted with this amendment.** Applicants reserve all rights with respect to the application of the doctrine equivalents. If there are any additional charges, please charge them to our Deposit Account No. 02-2666. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Dated: August 11, 2005